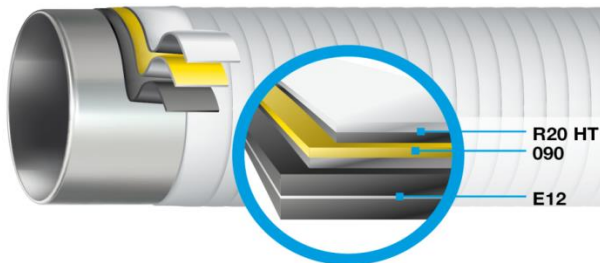


BUTYLEN System 1

BUTYLEN-E12/-090/-R20 HT

Product information



Special advantages:



For permanent operating temperatures up to +30°C (+86°F).



Fulfills EN 12068-C 30.



Highly resistant thanks to three-tape design.



Easy application even for manual wrapping.

Robust field coating system for the corrosion prevention of pipelines and pipeline components.

DEKOTEC GmbH stands for experience, quality and reliability in the field of corrosion prevention and sealing technology. The success is based on the development of the Petrolatum-Tape which was already developed in 1927 as the first product worldwide for passive corrosion prevention of pipelines. We establish and guarantee the highest quality standards with technically trend-setting products. Research, development and production take place exclusively in Germany. Our employees are continuously implementing safe and individual solutions in a personal cooperation with the customer.

Description

BUTYLEN System 1 is a robust field coating system for the permanent corrosion prevention of pipelines and pipeline components. BUTYLEN System 1 is a highly stressable systems based on its design of three **BUTYLEN** tapes. The requirements for the stress class **C 30** in accordance with EN 12068 are exceeded.

Standard designation:

- EN 12068 - **C 30**

BUTYLEN System 1 consists of three **BUTYLEN** tapes that have been proven for a long time:

BUTYLEN-E12 is a soft butyl rubber tape, which – as the inner tape – assumes the major corrosion prevention properties of the system. The thick butyl rubber layer of the system permits an outstanding molding of unevenly formed surfaces and an easy manual processing, e.g. on pipelines with small nominal pipe sizes, pipe bends and house connection valves. Due to its self-amalgamation effect in the overlapping area, BUTYLEN-E12 creates an essentially gas and water tight as well as electrically high insulating encasement.

BUTYLEN-090 is used as the middle layer in the coating system. It is a flexible two-ply tape with a polyethylene outside layer and a butyl rubber coating positioned on the inside. The applied winding tension presses the inner tape solidly to the component surface and supports the self-amalgamation of the inner tape.

BUTYLEN-R20 HT is a robust two-ply tape. The solid polyethylene outside layer protects the encasement against mechanical stresses.

All three **BUTYLEN** tapes can be processed efficiently with the **DEKOMAT®** wrapping devices.

Typical product properties

| Property | Unit | BUTYLEN-E12 Typical value | BUTYLEN-090 Typical value | BUTYLEN-R20 HT Typical value | Test method |
|---------------------------------------|-----------------------|------------------------------|------------------------------|---------------------------------|------------------------|
| Carrier film color | - | | yellow | white, black , or blue | - |
| Butyl adhesive color inside | - | black | black | black | - |
| Butyl adhesive color outside | - | black | - | - | - |
| Tape thickness | mm | ≥1.2 | ≥0.4 | ≥0.5 | ISO 4591 ASTM D1000 |
| Carrier film thickness app. | mm | ≥0.025 | ≥0.22 | ≥0.3 | |
| Inside adhesive layer thickness app. | mm | ≥0.73 | ≥0.18 | ≥0.2 | |
| Outside adhesive layer thickness app. | mm | ≥0.45 | - | - | |
| Elongation at break | % | - | ≥400 | ≥500 | DIN 30672 |
| Tape strength | +23°C (+73°F) N/cm | - | ≥35 | ≥65 | EN 12068 |
| Dielectric strength | kV/mm | - | - | ≥50 | ASTM D149 |

| Property | Unit | BUTYLEN System 1 Typical value | Required value | Test method |
|--|-------------------------------|-----------------------------------|------------------|------------------------|
| System design | Primer | BUTYLEN-HT Primer | - | - |
| | Inner tape | BUTYLEN-E12, 2 layers | | |
| | Tensioning tape | BUTYLEN-090, 2 layers | | |
| | Outer tape | BUTYLEN-R20 HT, 2 layers | | |
| Total thickness | mm | ≥4.2 | - | - |
| Specific electrical insulation resistance | Ohm m ² | ≥10 ¹⁰ | ≥10 ⁸ | EN 12068 |
| Peel strength metal/primer/tape | N/cm | ≥15 | ≥10 | EN 12068 ASTM D1000 |
| Peel strength layer to layer | E12 / E12 | ≥30 | ≥15 | EN 12068 |
| | E12 / 090 | ≥20 | ≥15 | |
| | 090 / 090 | ≥2 | ≥2 | |
| | R20 HT / R20 HT | ≥3 | ≥2 | |
| Indentation resistance (residual layer thickness) (stamp load 10MPa) | mm | >0.8 | ≥0.6 | EN 12068 |
| Impact resistance | J | >15 | ≥15 | EN 12068 |
| Cathodic disbondment (radius) | mm | <8 | <20 | EN 12068 |
| Lap shear strength | on steel N/cm ² | >15 | ≥5 | EN 12068 |

BUTYLEN tapes can be easily applied manually. The processing with the original **DEKOMAT®** wrapping devices is even more efficient. For **BUTYLEN** tapes with widths of > 50 mm, we recommend the use of the **DEKOMAT®** wrapping device to guarantee an excellent processing quality.

Ordering information and packaging

| | Core diameter (mm) | Tape length (m) | Width (mm) | Tape area (m ²) | Content per box | | | |
|-----------------------|--------------------|-----------------|------------|-----------------------------|-----------------|-----------------------------------|-----------------------|------------------|
| | | | | | Number of rolls | Total tape area (m ²) | Total tape length (m) | App. weight (kg) |
| BUTYLEN-E12 | 41 | 10 | 50 | 0.5 | 12 | 6.0 | 120 | 10 |
| | | | 75 | 0.75 | 12 | 9.0 | 120 | 15 |
| | | | 100 | 1.0 | 6 | 6.0 | 60 | 10 |
| BUTYLEN-090 | 41 | 15 | 50 | 0.75 | 12 | 9.0 | 180 | 6.5 |
| | | | 75 | 1.125 | 12 | 13.5 | 180 | 10,0 |
| | | | 100 | 1.5 | 6 | 9.0 | 90 | 6.5 |
| BUTYLEN-R20 HT | 41 | 15 | 30 | 0.45 | 18 | 8.1 | 270 | 5.0 |
| | | | 50 | 0.75 | 12 | 9.0 | 180 | 5.5 |
| | | | 75 | 1.125 | 12 | 13.5 | 180 | 8.0 |
| | | | 100 | 1.5 | 6 | 9.0 | 90 | 5.5 |
| | | 30 | 50 | 1.5 | 12 | 18 | 360 | 11.0 |
| | | | 75 | 2.25 | 12 | 27 | 360 | 17.0 |
| | | | 100 | 3.0 | 6 | 18 | 180 | 11.0 |
| | | | 150 | 4.5 | 6 | 27 | 180 | 17.0 |

Additional lengths and widths are available on request.

Storage

When stored in its original, unopened packaging, **BUTYLEN-E12/-090/-R20 HT** can be stored for at least 60 months after the manufacturing date.

Storage temperature: ≤ +50°C (+122°F)

Store in a dry location and do not rest anything against the front of the product.

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